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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,964	02/16/2000	Yasuhiko Shinjo	CU-2130-RJS	6722

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EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2652

DATE MAILED: 01/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/504,964

Applicant(s)

SHINJO ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Final -Rejection***

1. Applicant is advised that should claim 1 be found allowable, claim 2 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in

(1) an application for patent, published under 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language; or”

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Dirne et al (US 5,896,253).

With regard to claim 1, Dirne et al shows a magnetic head device including: a base member 1 (Figs 2 and 4; column 3, lines 38-46); a thin-film magnetic head 198+3+21 +9+E11+19a (Fig. 2; column 4, lines 8-27) which is in contact with the base member 1 (Fig. 2) and is accommodated in a non-magnetic layer 25 (Fig. 2; column 4, line 25), with a magnetic gap S11 (Fig. 2, column 3, line 48) being exposed (it is interpreted as “exposed through the non-magnetic insulating layer at the top end of

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the magnetic head" as set forth in p. 5, lines 32-33 in this Application), wherein the thin-film magnetic head includes a lower yoke 19A (Column 4, lines 10-11), a magnetoresistive element E11 (Column 3, lines 58-60), an upper yoke 19B, and electrode terminals 13a and 13b (Fig. 1; column 3, lines 63-65); an auxiliary member 3 (Fig. 4) which sandwiches the non-magnetic layer 25 between the auxiliary member 3 and the base member 1; and a slider surface 5 (Fig. 2) which magnetic tape 7 (Fig. 2; column 4, line 14 and column 2, lines 6-7) slides in a first direction x (Fig. 2) along which the base member 1, the non-magnetic layer 25, and the auxiliary member 3 are arranged.

With regard to claim 2, Dirne et al further shows that the thin-film magnetic head is a magnetoresistive head MR (column 3, lines 58-60).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dirne et al in view of Isomura et al (US 5,227,940).

Dirne et al shows a magnetic head device as described above, but does not specify that in this device the non-magnetic layer on the slider surface has an area of 0.02 mm X 0.008 mm or less.

Isomura et al shows a magnetic head device, wherein the non-magnetic layer 2 (Fig. 1, column 14, line 32) has a thickness  $b = 2 \times 10^{-6}$  mm (Column 16, line 8), and a length of the widthwise contour, which is less than  $2d = 0.04$  mm (Column 16, line 4); the area of the non-magnetic layer on the slider surface is less than

$$0.000002 \text{ mm} \times 0.04 \text{ mm},$$

which is less than  $0.02 \text{ mm} \times 0.08 \text{ mm}$ .

It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the area of the non-magnetic layer on the slider surface in Dirne et al's device being  $0.02 \text{ mm} \times 0.08 \text{ mm}$  or less. The rationale is as follows: no unexpected effect resulted from the specific numbers of  $0.02 \text{ mm} \times 0.08 \text{ mm}$  was disclosed in this Application. One of ordinary skill in the art would have been searching for the size of the area through experimentation and optimization. Isomura et al discloses a similar magnetic head device, wherein the size of the area of the non-magnetic layer on the slider surface is less than  $0.000002 \text{ mm} \times 0.04 \text{ mm}$ , which is less than  $0.02 \text{ mm} \times 0.08 \text{ mm}$ . One of ordinary skill in the art would have been motivated to find a usable size of the area through experimentation and optimization, which would include the numbers disclosed by Isomura et al, which is less than  $0.02 \text{ mm} \times 0.08 \text{ mm}$ .

#### ***Response to Arguments***

4. Applicant's arguments filed 08/21/2002 have been fully considered but they are not persuasive.

Applicant assumes that the newly amended claim 1 should overcome the rejection. However, as described above, the newly added elements (upper and lower yokes and terminals) exist in the reference already and the rejection maintains.

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**Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

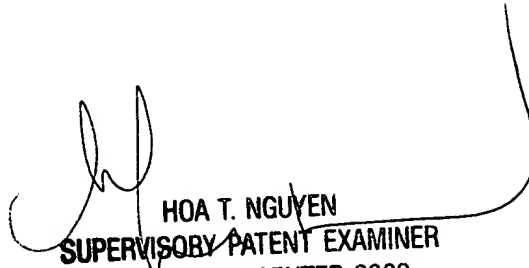
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (703) 305-9687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

TJ

December 30, 2002

  
HOA T. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600  
1/10/03